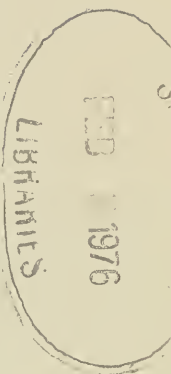


PROCEEDINGS
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SARSIELLA OZOTOTHRIX, A NEW SPECIES OF
MARINE OSTRACODA (MYODOCOPINA) FROM THE
ATLANTIC AND GULF COASTS OF NORTH AMERICA

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Specimens of *Sarsiella ozotothrix*, the new species described below, were collected at three localities: 1, Stonewall Pond, Chilmark, Martha's Vineyard, Massachusetts; 2, Long Island Sound between Eatons's Neck, Long Island and Darien, Connecticut; and 3, Alligator Harbor, Florida. The species was not reported from the Sapelo Island area of Georgia by Darby (1965), nor is it present in extensive collections from the Fort Pierce area of Florida examined by the senior author. This might indicate that the Atlantic and Gulf coasts populations are disjunct. The known distribution suggests that the species may have inhabited the southeastern coast of North America in the past, possibly during colder climates of the Pleistocene. A similar explanation was proposed for the disjunct Atlantic-Gulf coast distribution of *Sarsiella zostericola* Cushman 1906, by Kornicker (1975:130).

SUBORDER MYODOCOPINA

SARSIELLIDAE Brady and Norman, 1896

Sarseilla Norman, 1869

Sarsiella ozotothrix, new species

Figures 1-3

Etymology: The specific name is from the Greek *ozotos* = branching, branched, combined with *thrix* = hair and refers to the branching hairs or bristles on the carapace.

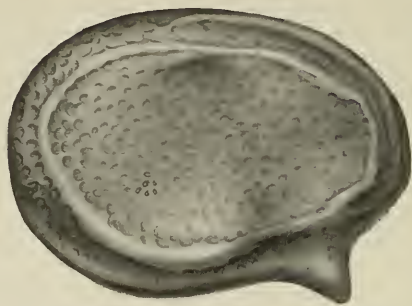


FIG. 1. *Sarsiella ozotothrix* new species, paratype, left lateral view of ovigerous female from Alligator Harbor, Florida, USNM 152441, length 0.95 mm.

Material examined:—Alligator Harbor, Florida, Sta. I, 5-2, depth and precise locality unknown; Darrell K. Jones, collector, exact date unknown, about 1957; 1 ovigerous ♀ paratype, USNM 152441.

—Long Island Sound, sta. EB8-2, dump site between Eaton's Neck, Long Island, and Darien, Connecticut, 41°00'N, 73°26'W, depth 23.5 m; sandy bottom, 93% sand, 3% silt, 4% clay; substrate and water surface temperature 3.0°C (substrate temperature taken aboard ship when grab was opened), Marcia Bowen collector, February 1975; 9 paratypes (returned to collector).

—Martha's Vineyard, Massachusetts, Stonewall Pond (between Gay Head and Chilmark) near ocean side, separated from ocean by bar; Mrs. C. R. Stoertz, collector, July 1965: Sta. 1, water depth 2 m (type-locality), 1 ovigerous ♀ holotype, USNM 152455 (in alcohol and on slides); 4 paratypes, USNM 152454. Sta. 6, water depth 3 m, 5 paratypes including 1 ovigerous ♀ and 1 adult ♀, USNM 152847, and 3 adult ♂, USNM 153929 and 153920.

Distribution: Martha's Vineyard, Massachusetts; Long Island Sound; Alligator Harbor, Florida.

Description of Adult Female: Carapace oval in lateral view with prominent caudal process and without rostrum or incisur (Figs. 1, 2a); carapace in posterior half widest dorsally, in anterior half widest ventrally.

Ornamentation: Continuous oval ridge composed of bristles present on each valve approximately parallel to outer margin of valve except in vicinity of caudal process (Figs. 1, 2a); anteroventral segment of ridge less convex than anteroventral margin of valve; a rib composed of bristles present just within dorsal margin of valve; surface of valve with small flat-bottomed fossae; radial ribs composed of bristles perpendicular to oval ridge present along anteroventral, ventral, and posteroventral margins.

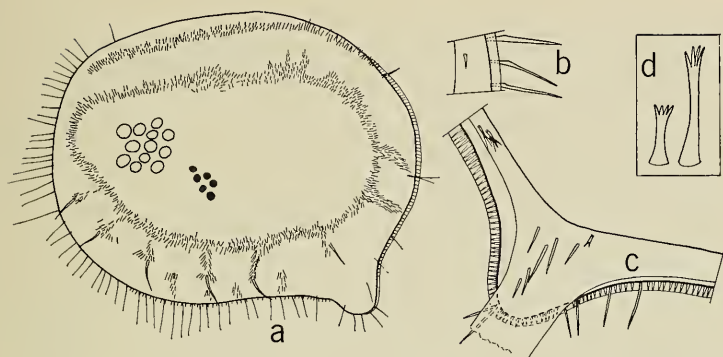


FIG. 2. *Sarsiella ozotothrix* new species, holotype, USNM 152455, ovigerous female from Martha's Vineyard, Massachusetts: a, Left lateral view of left valve, open circles represent fossae which completely cover surface, black dots represent central adductor muscle endings; b, Detail of anterior infold of left valve near middle showing minute bristle on infold and 3 marginal bristles, medial view; c, Caudal process of left valve and 2 flagellate posterior bristles, medial view; d, Sketch of short and long bristles with branching tips that are abundant on outer surfaces of valves.

Bristles: Long bristles with pointed tips and broad ringed bases present along anterior and ventral valve margins and scattered over valve surface (Fig. 2a–c); long stout bristles with branching tips form ridges and ribs on valves (Fig. 2d); shorter bristles with branching tips present on bottoms of fossae and between fossae (Fig. 2d); transparent organic substance present between bristles on most specimens.

Infold: Anterior infold with minute bristle near middle (Fig. 2b); infold in front of caudal processes with 4–6 bristles (Fig. 2c); 2 flagellate bristles present on posterior infold dorsal to caudal process (Fig. 2c); a few minute bristles present along inner margin of infold in vicinity of caudal process.

Selvae: Wide lamellar prolongation with smooth outer edge present along anterior, ventral, and posterior margins of both valves.

Size: USNM 152441, length 0.96 mm, height 0.72 mm with caudal process; USNM 152454-A, length 0.99 mm, height 0.84 mm with caudal process, 0.83 mm without; USNM 152454-C, length 1.05 mm, height 0.86 mm with caudal process; USNM 152455-A, length 1.05 mm, height 0.93 mm with caudal process; USNM 152455-B, length 1.00 mm, height 0.85 mm with caudal process; adult female from Long Island Sound, length 0.95 mm, height excluding caudal process 0.70 mm.

First antenna (Fig. 3a): 1st joint bare; 2nd joint with short bristle and long hairs on dorsal margin; 3rd joint with 2 short bristles, 1 ventral,

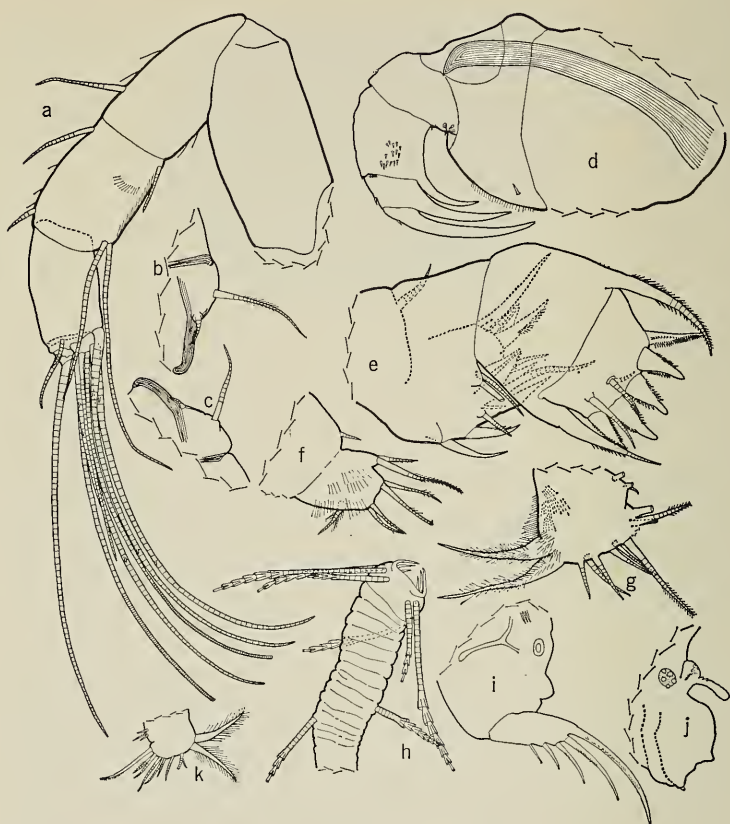


FIG. 3. *Sarsiella ozotothrix* new species, a-j, Paratype, USNM 152441: a, Right 1st antenna, medial view; b, c, Endopodites of right and left 2nd antennae, medial views; d, Right mandible, medial view; e, Right maxilla, lateral view; f, Tip of 5th limb; g, 6th limb; h, 7th limb; i, Anterior of body showing lateral eye, medial eye and rod-shaped organ, anterior triangular process, and upper lip at bottom of figure; j, Posterior of body showing right lamella of furca, right genitalia and brush-like organ, and right Y-sclerite; k, USNM 152454-A, 6th limb.

1 dorsal; 4th joint with very short dorsal bristle, 2 long ventral bristles, and spines and hairs on medial surface and along ventral and dorsal margins; sensory bristle of 5th joint with 2 minute filaments; 6th joint with short medial bristle. Seventh joint: a-bristle about twice length of bristle of 6th joint; b-bristle about 4 times length of a-bristle, bare;

c-bristle long with 2 minute filaments. Eighth joint: c- and d-bristles long, bare; e-bristle long, bare; f-bristle long with 3 minute filaments.

Second antenna: Protopodite bare; endopodite with 1 short bare proximal bristle and 1 longer spinous terminal bristle (Fig. 3b, c). Exopodite: 1st joint with long proximal hairs along ventral margin and small medial spine on distal margin; bristle of 2nd joint long, with short slender spines along middle of ventral margin and long natatory hairs along proximal dorsal margin and distal part of ventral margin; bristles of joints 2-8 with natatory hairs; 9th joint with 3 bristles, 2 long with natatory hairs, 1 short with short slender marginal spines; spines observed along distal margins of joints 2-4; few small medial spines forming short row on joint 2 proximal to row of spines along distal margin.

Mandible (Fig. 3d): Coxale endite consisting of stout spine; ventral margin of coxale with long hairs. Basale: dorsal margin with 1 minute subterminal spine; ventral margin with 5 minute spines: 3 proximal and 1 distal on medial surface; 1 proximal with base on lateral side. Endopodite: 1st joint with distal medial spines and minute terminal spine on dorsal margin (not seen with certainty); no spines observed at base of main claw; 2nd joint with subterminal spine on dorsal margin; no spines observed at base of main claw; 3rd joint with minute dorsal spine at base of main claw; no teeth observed on claws of endopodite. Exopodite absent.

Maxilla (Fig. 3e): Endite I with 4 bristles; endite II with 3 bristles; endite III with 7 bristles; coxale with 1 anterior bristle; basale with 1 short bristle near exopodite; exopodite with 2 bristles, 1 short, 1 long; 1st endopodite joint with spinous alpha- and beta-bristles, and a few short spines distally on anterior margin; 2nd endopodite joint with 2 lateral a-bristles, 1 medial c-bristle, and usual 5 pectinate terminal bristles.

Fifth limb: Epipodial appendage with 25-27 bristles; single endite with 1 short bristle. Exopodite (Fig. 3f): joints fused; 1st joint with 2 bristles; remaining joints with total of 5 bristles; surface of exopodite hirsute.

Sixth limb (Fig. 3g, k): Endite with 3 bristles, end joint with 11 bristles.

Seventh limb (Fig. 3h): Proximal group with 2 bristles, 1 on each side; distal group with 6 bristles, 3 on each side; each bristle with 2-5 bells; all bristles without marginal spines; terminus with opposing combs, each with about 6 or 7 opposing teeth.

Furca (Fig. 3j): Each lamella with 5 pointed claws; claw 1 separated from lamella by suture; claws 2-5 joined to lamella; claws 1-3 with few stout and many slender teeth along posterior margins; 2 minute spines and many long hairs on lamella following claw 5.

Eyes (Fig. 3i): Lateral eyes with 4-5 ommatidia; medial eye pigmented, about same size as lateral eye.

Rod-shaped organ (Fig. 3i): Elongate with proximal wrinkles and rounded tip.

Genitalia (Fig. 3j): Oval amber-colored process present on each side of body anterior to furca.

Brushlike organ (Fig. 3j): Consisting of 3 minute ringed bristles above genitalia.

Posterior of body: Bare.

Upper lip: Simple with rounded anterior process at tip. (Fig. 3i).

Y-sclerite: Typical for family (Fig. 3j).

Eggs: USNM 152441 with 6 eggs in marsupium, USNM 152454-A with 5 eggs.

Comparisons: The new species, *S. ozotothrix*, differs from other species of *Sarsiella* in having on each valve a continuous well-developed oval ridge formed of bristles with branching tips. The morphology of the endopodite of the 2nd antenna differs from many species of *Sarsiella* in having 1 proximal and 1 terminal bristle.

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